

Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of)
)
Telephone Service for)
Indians on Reservations)

BO Docket No. 99-11

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

COMMENTS OF SKYBRIDGE L.L.C.

SkyBridge, L.L.C. ("SkyBridge"), by its attorneys, hereby submits its comments in response to the Public Notice issued by the Federal Communications Commission (the "Commission") in the above-captioned docket.^{1/} In the Public Notice, the Commission asked interested parties to provide "recommendations for solutions which will improve access to telephone service on reservations," and to address the "availability of advanced services, including Internet access for educational uses, health-related information, and other basic needs."^{2/} SkyBridge submits that one key means of improving access to basic and advanced telecommunications services on reservations is through the swift licensing and promotion of satellite broadband technology, such as that currently being developed by SkyBridge.

^{1/} Public Notice, FCC To Hold Second Public Hearing In Series On Telephone Service For Indians On Reservations; Set For March 23 In Chandler, Arizona, DA 99-430 (rel. March 2, 1999) ("Public Notice").

^{2/} Id.

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I. INTRODUCTION

As the Commission is aware, SkyBridge is an applicant for a Commission license for authority to launch and operate the "SkyBridge System," a global nongeostationary ("NGSO") satellite system, which will provide a range of data, voice, and video broadband services in the Fixed-Satellite Service ("FSS") in the Ku-band.^{3/} SkyBridge will offer interactive broadband and narrowband telecommunications with fiber optic-like connectivity, and will link users to local servers as well as to terrestrial broadband and narrowband networks. The broadband services that SkyBridge will offer include high-speed Internet access and on-line services, video-conferencing and video-telephony, multimedia entertainment services, telecommuting, LAN interconnection, and infrastructure links for telephony, wireless local loops and mobile communication; the narrowband services will include voice, video-conferencing and backup long haul connection.

Thus, immediately upon commencing service in late 2001, SkyBridge could provide high-quality, cost-effective basic and advanced telecommunications services to even the most remote Indian reservations. Given the difficulty and cost of providing such services through terrestrial means, the FCC should take every opportunity to promote alternative delivery systems, such as the SkyBridge System.

^{3/} See Application of SkyBridge L.L.C. for Authority to Launch and Operate the SkyBridge System, File No. 48-SAT-P/LA-97, February 28, 1997; Amendment, File No. 89-SAT-AMEND-97, July 3, 1997; Amendment, File No. SAT-AMD-19980630-00056, June 30, 1998; Amendment, File No. SAT-AMD-19990108-00004, January 8, 1999. The application, as amended, was placed on public notice on March 23, 1999. See Report No. SAT-00013.

Specifically, the Commission should act quickly on the pending Ku-band NGSO FSS applications.

II. DISCUSSION

A. NGSO FSS Systems, Such As The SkyBridge System, Are Well-Suited To Provide The High-Quality Telecommunications Services That Indian Reservations Lack.

As is evident from the testimony and written comments received by the Commission from representatives of various Indian tribes,^{4/} telecommunications on reservations are woefully inadequate. For example, as noted by George Arthur, Council Delegate to the Navajo Nation Council, “77.5% of the residents of the Navajo Nation still do not have telephone services.”^{5/} Moreover, as noted by Eagle Rael, Governor of the Pueblo of Picuris, only one third of the private residences in that Pueblo have basic phone service.^{6/}

The reasons for the lack of adequate telecommunications services on reservations are both economic and geographic. Reservations are located in some of

^{4/} See, e.g., Testimony of Chairman Stanley Pino of the All Indian Pueblo Council before the Federal Communications Commission, Albuquerque, New Mexico, January 29, 1999, at 2 (“Pino Testimony”) (“we need affordable telephone service, adequate lines and serious respect for our cultural identities”); Testimony of George Arthur of the Navajo Nation Council before the Federal Communications Commission, Albuquerque, New Mexico, January 29, 1999, at 1 (“Arthur Testimony”) (“. . . the development of a Navajo Nation-wide telecommunications network is critical to the Navajo people”).

^{5/} Arthur Testimony at 2.

^{6/} Testimony of Eagle Rael, Governor, Pueblo of Picuris before the Federal Communications Commission, Albuquerque, New Mexico, January 29, 1999, at 1 (“Rael Testimony”).

the most isolated and rugged areas of the country. Deployment of terrestrial telecommunications networks in these areas is extremely expensive. Reservations generally do not have sufficiently concentrated population centers to make deployment of advanced, or even basic services profitable for most terrestrial telecom operators. In addition, reservations historically have not had the concentration of businesses and high-traffic users that would make deployment and marketing of services attractive for terrestrial operators. Other testimony has shown that Federal and state subsidies are insufficient to attract terrestrial service providers^{7/} and that the costs associated with terrestrial buildouts run to millions of dollars.^{8/}

The geographic and economic considerations that make service to reservations unattractive to terrestrial networks, however, are not an issue for providers of satellite telecommunications such as SkyBridge. NGSO FSS systems such as the SkyBridge System present an opportunity to overcome the historic discrimination that reservations have suffered due to their economic and geographic realities. The systems could radically transform the lives of people on reservations and provide a new infrastructure that will help bring reservations all the benefits and opportunities of the emerging information economy. Additionally, such systems will

^{7/} See, e.g., Comments of US West Communications, Inc. ("US West"), March 31, 1999, at 6 (amount of Universal Service Fund received by US West falls far short of minimum funding necessary to support affordable service in high-cost rural areas where many Native American reservations are located).

^{8/} Id. at 11 (\$38 million is necessary to support terrestrial universal service in New Mexico); see also Arthur Testimony at 2 (estimated cost to connect a new subscriber is \$5,000 and a minimum of \$21 million needed to upgrade the existing network).

offer tribes the opportunity to take an active role in developing and deploying this infrastructure, without the need to rely on the investment decisions of outside entities.

End users will access the SkyBridge satellite constellation, for example, directly from their homes or offices, through use of a small (approximately 50 cm) user terminal, without the need to access any intervening terrestrial network.

Contrary to the testimony of some,^{9/} satellite services are not cost prohibitive. The cost of a SkyBridge user terminal, for instance, will be approximately \$700, and the monthly charges for service are expected to be comparable to current charges for terrestrial telephony or Internet access in urban areas. Because NGSO FSS systems do not require an expensive terrestrial network, they are able to bring urban connectivity and prices to remote and rural areas.^{10/} They will, in effect, eliminate the traditional geographic discrimination these areas have suffered.

B. NGSO FSS Systems, Such As The SkyBridge System, Are Flexible Enough To Efficiently Meet The Needs Of A Variety Of End Users.

The ability to offer a broad range of services such as videoconferencing, high-speed data networking, Internet access and voice service at a competitive cost will provide a significant step forward in increasing economic activity, attracting business investment, and bettering the lives of citizens living on Indian reservations. While simple communications solutions may meet the current

^{9/} See Arthur Testimony at 8.

^{10/} See Testimony of Peter Carson, AwayComm, Inc., January 29, 1999 (\$800 per home required); testimony of Karen Butler, National Indian Telecommunications Institute, January 29, 1999, at 1 (initial POTS line into a reservation home can cost between \$10,000 and \$60,000).

basic telecommunications needs of residential Indian users, economic and social growth and development require the flexibility to meet the needs of businesses, educational facilities, hospitals, and public safety officials, among others. As many of the tribal representatives noted,^{11/} services such as telemedicine and distance learning can bring much needed educational and health services to Indian reservations.

Even for residents that do not desire broadband services,^{12/} these systems can serve as the backbone of a more efficient, less costly network on Indian reservations. A single SkyBridge user terminal, for instance, has enough capacity to serve as a backhaul mode for a wireless local loop. SkyBridge estimates that the cost of a 3-minute phone call over its system to any point in the world would be roughly \$0.04.

NGSO FSS systems also will allow the provision of medical, public safety, social and educational services on reservations that would otherwise be prohibitively expensive. For example, a small clinic with only one doctor, or even a layman with basic medical skills, may be able to meet the health needs of the local population. In many areas the nearest hospital is hours away, and access is prohibitive for many reservation residents. However, through the use of telemedicine, diagnoses can be made, x-rays can be read and treatment can be given at a fraction of the cost of moving the patient or sending a doctor to the area.

^{11/} See, e.g., Pino Testimony at 1-2; Arthur Testimony at 3; Testimony of Arnold Cassadore of the Jicarilla Apache Tribe before the Federal Communications Commission, Albuquerque, New Mexico, January 29, 1999, at 2.

^{12/} As noted above, however, the cost of access through a SkyBridge terminal is far less than the cost of building out terrestrial networks.

Similarly, a teacher on a reservation may have only limited contact with other educators and support. Simple tasks such as reviewing new textbooks, confirming testing requirements or supplementing teaching materials are made significantly more difficult in remote communities. The cost in the additional time, fuel and effort required to access such materials can be significant. In addition, access to advanced information is often possible only in the biggest cities. Through distance learning, NGSO FSS systems can give these remote areas the same access to information, teachers and resources that was previously possible only in the largest cities.

The potential advances in agriculture also are great. Through better communications, farmers can determine market prices, locate buyers worldwide, and have access to information on crop production, disease prevention and marketing. Again the value of this information -- especially in cases where it has been totally unavailable -- will more than justify the cost to many farmers.

Finally, the SkyBridge System can be used to provide technical training for workers, facilitate communications among government officials, and improve the skills of health professionals, teachers and farmers. Many of these opportunities likely would be unavailable if only traditional terrestrial telecommunications were used.

C. Satellite Technologies Will Allow Indians To Move Away From Their Traditional Dependence on Distant Telecom Providers.

The new generation of satellite systems will provide Indian tribes a means to move away from their historic reliance on distant telecom service providers.

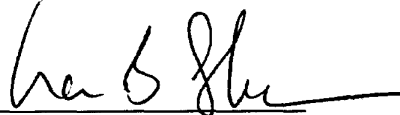
Provision of high-quality telephone and advanced telecommunications services will not require deployment and maintenance of expensive terrestrial infrastructure; rather, it will require only the sale of terminals, the development of markets for the services, and the management and servicing of customers. This is something that the tribes themselves are ideally positioned to accomplish. The basic infrastructure will be in place and available to the reservations when the SkyBridge System is turned on in late 2001. All that a user will need in order to receive NGSO FSS services is access to a terminal and a clear view of the sky. Within this model, tribal service providers should be able to take an active role in developing their own indigenous markets and in deploying the NGSO FSS services, without relying upon investment decisions of outside entities.

III. CONCLUSION

By acting quickly and favorably on the pending Ku-band NGSO FSS license applications, the Commission will open up a significant avenue for access to affordable, high-quality telephone and advanced telecommunications services on Indian reservations. We urge the Commission to support the development and market entry of SkyBridge and other NGSO FSS systems.

Respectfully submitted,

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